

Established 1760

TOOLS

for

Coopers and Gaugers

Produce Triers



A. F. BROMBACHER & CO.

29 & 31 Fulton Street
New York

Catalogue No. 15

1912

NOTICE

THIS Catalogue Number 15 represents our complete lines of **COOPERS' AND GAUGERS' TOOLS**, showing some new and improved tools, and changes in prices up to date, and supersedes all former lists, which should be destroyed.

It is designed to assist our customers in making selections of such tools as they may require, and the illustrations and descriptions give a clear idea of the tools represented.

We call especial attention to our complete assortment and large stock of tools, and are prepared to fill orders for any quantity.

With so large a variety and frequent changes it would be impossible to keep in print our actual selling prices, which are subject to change without notice. Our prices will always be the lowest market rates, and we will be pleased to quote promptly on request.

ORDERS BY MAIL

will receive prompt and careful attention and our lowest prices. In ordering, write your **NAME, TOWN AND STATE** plainly, and advise if goods are to be sent by **MAIL, EXPRESS OR FREIGHT** and name of the Transportation Company. Use catalogue names, figure number, size and numbers.

OUR TERMS

A deposit required on all C. O. D. orders.

Remitting in advance saves expense of return charges.

Small amounts can be sent by P. O. Money Order, Express, Draft, Postal Note or Postage Stamps.

Accounts subject to draft after thirty days.

When goods shipped are receipted for in good order, all claims for damages must be made on the Transportation Company.

If any errors are made, write us promptly and we will rectify same at once.

Goods delivered free to any depot in New York.

A. F. BROMBACHER & CO.

New York, September, 1912.

NOTICE

October, 1914.

Please note changes in list prices in our Catalogue No. 15.

Page 7	Barton Oval Socket Drivers, 2¾ inch, Extra Heavy, Fig. 27,						\$2.00 each		
Page 9	Kirby Patent Bung Borers and Reamers, fig. 36.								
	Size	1	1⅜	1¾	2	2¼	2½ inch		
	Price	\$4.75	4.75	6.75	6.75	7.50	8.00 each		
	Size	3	3½	4	4½	5	inch		
	Price	\$9.00	11.50	14.50	16.50	19.50	each		
	Machine Reamers for Power, use fig. 37						Extra \$3.00 each		
Page 11	Coopers' Whittlers, fig. 50						\$1.00 each		
	Coopers' Compasses, fig. 51.								
	Size	8	10	12	15	18	24 inch		
	Price	\$0.30	.40	.50	1.00	1.25	1.75 each		
Page 17	Compressed Poplar Bungs, 1⅝ inch thick. Fig. 83.								
	Sizes given refer to largest diameter.								
	1 to 1½	1⅞ to 1⅞	1¾ to 1⅞	2	2⅞	2¼	2½	2¾	3 inches
	\$3.00	3.25	3.75	4.25	4.75	5.25	6.75	8.00	9.50 per 1000
	Rubber Bungs, Standard Sizes						\$1.25 per lb.		
	No.	Small End	Large End	Length	Hole				
	1	1⅝"	2⅞"	3"	1⅝"				
	2	1⅝"	2½"	3⅞"	1⅝"				
	3	1⅝"	2¾"	3⅝"	1"				
	4	2⅞"	2¾"	4"	1"				
	5	1⅞"	2⅞"	3"	1"				
	6	2¼"	2⅞"	2½"	1"				
	7	2½"	3"	3"	1"				
Page 17	Add Hoop Fasteners, fig. 84.								
	No. 0½, ¾ inch No. 9 wire					\$.07 per lb.			
	No. 1, 1 inch No. 9 wire					.07 "			
Page 23	Coopers' Jointers, fig. 104, 6' long, 5 x 5						\$7.50 each		
	Coopers' Jointers, fig. 105, 6' long, 5 x 5						7.50 "		
	Combined Head and Stave Jointers, 6' long, 5 x 5						12.50 "		
Page 28	Combined Shear and Punch, fig. 113.								
	No. 1, 4½" cut					\$18.00 each			
	No. 2, 5½" cut					22.50 "			
	Samson Punch, fig. 114.								
	No. 5					\$22.50 each			

A. F. BROMBACHER & CO.,

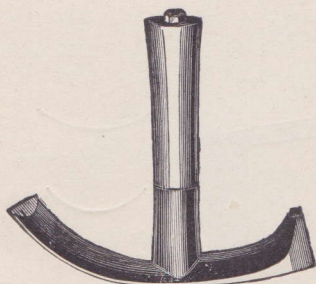
29-31 Fulton Street, New York.



Barton's without handles and bolts

No.....	1	2	3	4	5	
Weight.....	2 to 2½	3 to 3½	4	4½	5	lbs.
Price.....	\$2.25	2.50	2.75	3.00	3.25	each
With checked face additional.....					.25	"
With claw additional.....					.50	"
Handles and bolts.....					.25	"
Handles only.....					.15	"
Bolts only.....					.15	"

Coopers' Adzes, Western Pattern. Fig. 2.

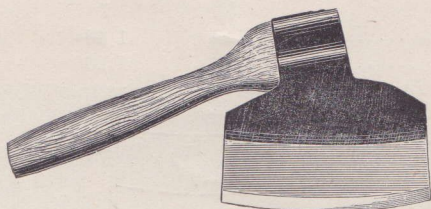


Barton's with handles and bolts

No.....	3	2	1½	1	
Weight.....	1½ to 2½	3	3½	4	lbs.
Price.....	\$2.25	2.25	2.38	2.50	each
With checked face additional.....				.25	"

King's with handles and bolts

Weight 2½ to 3½ lbs.....	1.75	"
With checked face	2.00	"



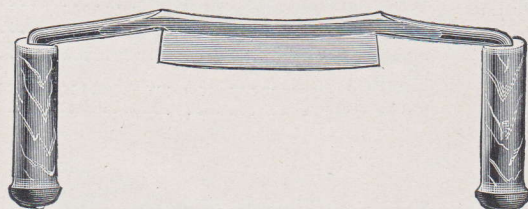
Coopers' Axes. Fig. 3.

Barton's handled.....	No. 2	1½	1
Length of cut.....	8	9	10 inch
Price.....	\$2.25	2.50	2.75 each
Coopers' Axe Handles.....			.25 "



Coopers' Stave and Heading Knives. Fig. 4.

	7	8	9	10	11	12	14	16	18 inch
Barton's.....	\$1.10	1.25	1.40	1.55	1.75	1.90	2.25	2.55	each
Horton's.....	1.40	1.40	1.55	1.70	1.85	2.00	2.40	2.80	3 50 "



Coopers' Hoop Knives. Fig. 5.

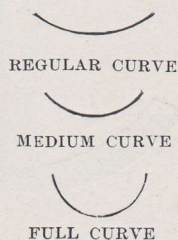
	8	9	10 inch
Barton's.....	\$1.25	1.40	1.55 each
Horton's	1.40	1.55	1.70 "



Coopers' Hollowing Knives. Fig. 6.

	6	7	8	9 inch
Barton's.....	\$1.10	1.10	1.25	1.40 each
Horton's.....	1.40	1.60	1.75	2.00 "

In ordering state which curve wanted.



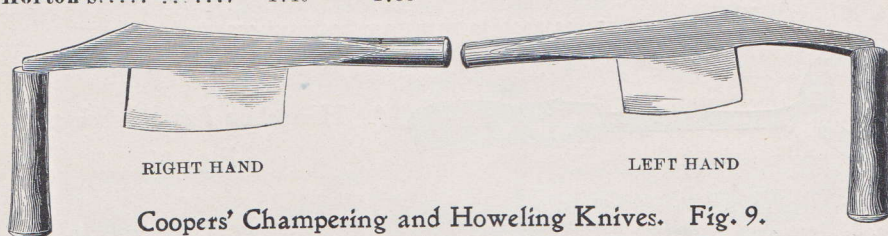
Coopers' Backing Knives. Fig. 7.

	6	7	8	9 inch
Barton's.....	\$1.10	1.10	1.25	1.40 each
Horton's.....	1.40	1.60	1.75	2.00 "

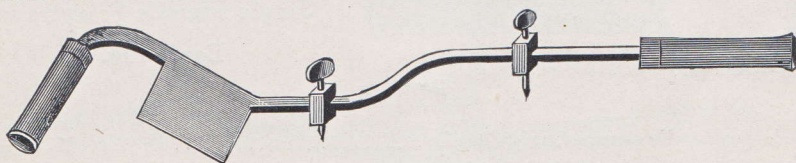
**Coopers' Shave Up Knives. Fig. 8.**

Flat or Hollow, 18 to 30 inches between the handles.

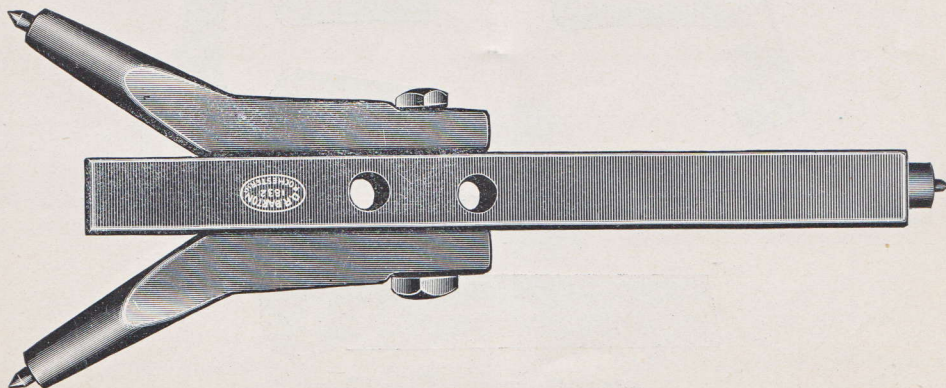
	6	7	8	9	10	12 inch
Barton's.....	\$1.10	1.10	1.25	1.40	1.55	1.90 each
Horton's.....	1.40	1.55	1.70	1.85	2.00	2.25 "

**Coopers' Chamfering and Howeling Knives. Fig. 9.**

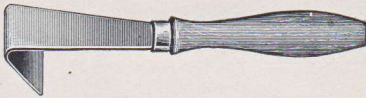
	4	4½ and 5	5½ and 6	6½	7 inch
Barton's.....	\$1.25	1.55	1.90	2.10	2.25 each
Barton's.....	6 inch	7 to 8 lb.			2.35 "
Barton's.....	7 inch	8 to 9 lb.			2.50 "

**Coopers' Beer Keg Chamfering Knife. Fig. 10.**

Barton's, for ⅛ and ¼ kegs.....	\$3.50 each
Barton's, for half barrels and barrels.....	3.75 "

**Coopers' Beer Chamfer Frog. Fig. 11.**

Coopers' Beer Chamfer Frog.....	\$2.50 each
---------------------------------	-------------



Coopers' Scrapers. Fig. 12.

Barton's Coopers' Scrapers.....\$0.65 each



Adjustable Box Scraper.

Fig. 13.

No. 70, Adjustable Box Scraper, 2-inch blade.....\$0.50 each

No. 70, Extra Blades......10 "

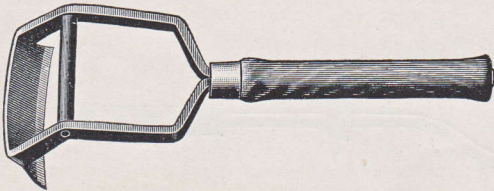


Horseshoe Pattern Scrapers.

Fig. 14.

No. 3, Horseshoe Scraper.....\$1.00 each

Brombacher's Hawkins Pattern Horseshoe Scraper, Extra Heavy..... 1.50 "

Single Handle Scraper, with
Bar. Fig. 15.

No. 5, Single Handle Scraper, with Bar.....\$1.25 each

Brombacher's Hawkins Pattern Scraper, with Bar, Extra Heavy 2.00 "

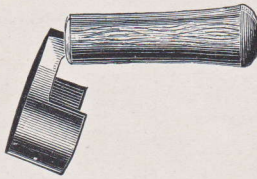


Fig. 16. Coopers' Inshaves.

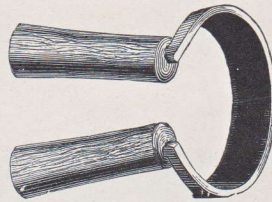


Fig. 17.

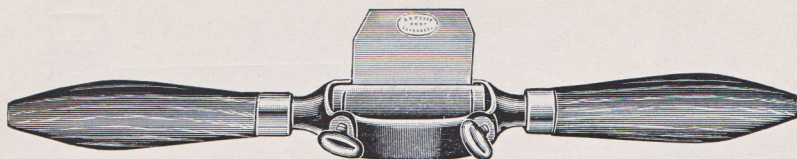
Barton's, one handle.....\$1.10 each

Barton's, two handle..... 1.10 "



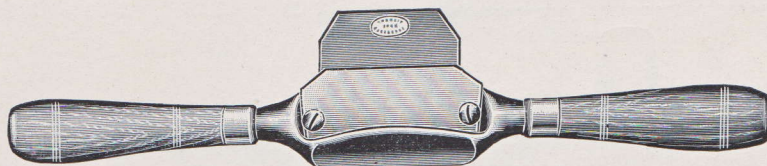
Coopers' Froes. Fig. 18.

6	8	10	12	14 inch
\$0.75	1.00	1.25	1.50	1.75 each



Coopers' Spoke Shaves. Fig. 19.

Jersey Wood Handle, No. 1 Cleveland Pattern, $2\frac{5}{8}$ -inch iron.....	\$1.00 each
Barton's Wood Handle, Cleveland Pattern, $2\frac{5}{8}$ -inch iron.....	1.25 "



Wood Handle Spoke Shaves. Fig. 20.

Barton's Wood Handle, Improved 3-inch iron.....	\$1.25 each
Handles for Spoke Shaves.....	.10 "



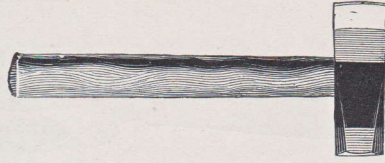
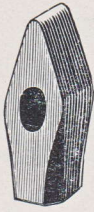
Iron Handle Spoke Shaves. Fig. 21.

Iron Handle 18 inches long, $2\frac{5}{8}$ -inch iron, No. 56.....	\$0.50 each
Iron Handle 19 inches long, 4-inch iron, No. 56 $\frac{1}{2}$.....	.75 "

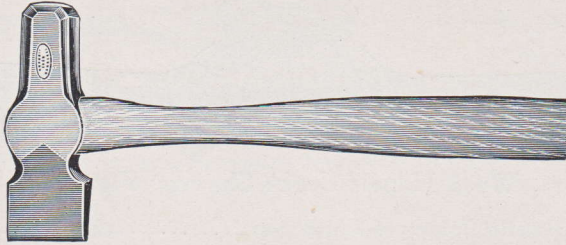


Spoke Shave Irons. Fig. 22.

Spoke Shave Irons for New Jersey, $2\frac{5}{8}$ inch.....	\$0.10 each
" " " for iron handle, $2\frac{5}{8}$ inch.....	.10 "
" " " for iron handle, 4 inch.....	.20 "
" " " for Barton's, $2\frac{5}{8}$ and 3 inch.....	.30 "

**Coopers' Hammers. Fig. 23.**

Solid Cast Steel handled.....	No. 4	5	6	7	
Weight with handles.....	3 to 3½	4	4½ to 5	5½ to 6½	lbs.
Price.....	\$1.40	1 50	1.75	2 00	each
Horton's Solid Cast Steel, handled					
Weight without handles.....	3 to 3½	4	4½	5	6 lbs.
Price.....	\$1.75	2.00	2.25	2.50	3 00 each

**Coopers' Nantucket Drivers. Fig. 24.****Brombacher's Hawkins Pattern Solid Steel, without handles.**

No.....	1	2	3	4
Weight.....	1	1¼	1½	2¼ lbs.
Price.....	\$0.90	1.00	1.15	1.65 each

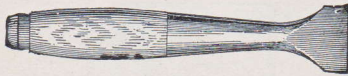
These are the very best Drivers made and fully warranted.

The Number 2 is standard size for Barrels.

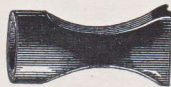
Fulton Nantucket Drivers, Solid Steel, without handles.

No.....	1	2	3
Weight.....	1	1¼	1½ lbs.
Price.....	\$0 75	0.88	1 00 each

Nantucket Driver Handles, special pattern..... 10 "

**Barton's Socket Drivers. Fig. 25.**

With handles	\$1.00 each
Handles only.....	10 "

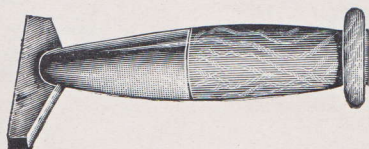
**Coopers' Socket Drivers. Fig. 26.**

Horton's Solid Cast Steel, without handles.....\$1.00 each



Coopers' Socket Drivers. Fig. 27.

Barton's Oval Socket, $2\frac{1}{2}$ inch face, without handles.....	\$1 00	each
“ “ “ 3 inch “ “ “	1.25	“
“ “ “ 3 inch “ “ “ Extra Heavy.....	2 50	“
Handles for Socket Drivers.....	.20	“



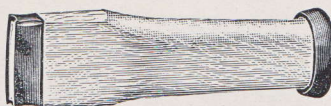
Wire Hoop Drivers. Fig. 28.

Especially adapted for Wire Hoops.....	\$1.00	each
--	--------	------



Wood Drivers. Fig. 29.

Hickory with Rings.....	\$0.35	each
-------------------------	--------	------



Wood Drivers. Fig. 30.

Steel Bound Hickory with Rings	\$1.00	each
--------------------------------------	--------	------



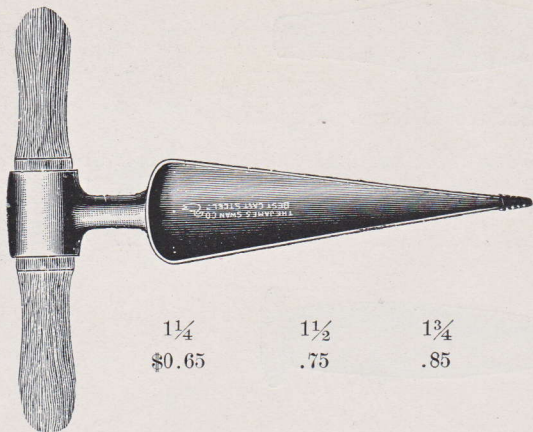
Coopers' Chime Mauls. Fig. 31.

Hickory	\$0 75	each
---------------	--------	------



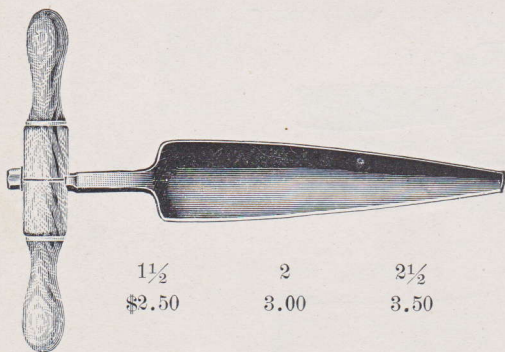
Coopers' Chime Mauls. Fig. 32.

Solid Steel, weight $10\frac{1}{2}$ lbs.....	\$1 50	each
--	--------	------



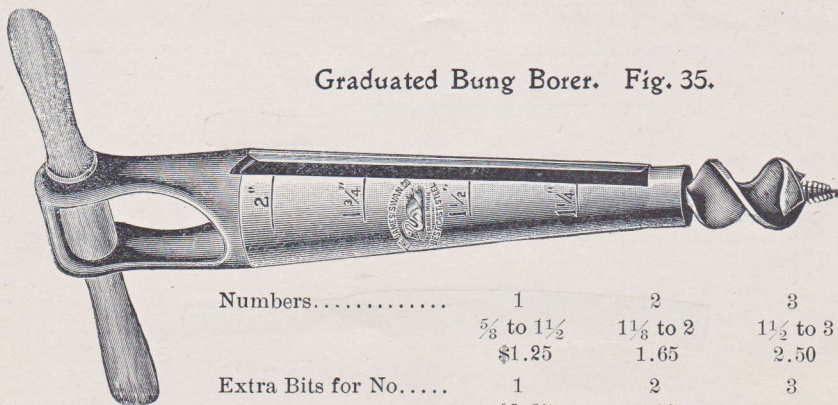
Ring Tap and Bung Borers
with Handle. Fig. 33.

$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{2}$	3 inch
\$0.65	.75	.85	1.00	1.50	2.00 each



Brombacher's Bung Borers.
Hawk's Pattern. Fig. 34.

$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4 inch
\$2.50	3.00	3.50	4.00	4.50	5.00 each



Graduated Bung Borer. Fig. 35.

Numbers.....	1	2	3
	$\frac{5}{8}$ to $1\frac{1}{2}$	$1\frac{1}{8}$ to 2	$1\frac{1}{2}$ to 3 inch
	\$1.25	1.65	2.50 each
Extra Bits for No.....	1	2	3
	\$0.35	.55	.75 each

Kirby Patent Bung Hole Borers and Reamers.

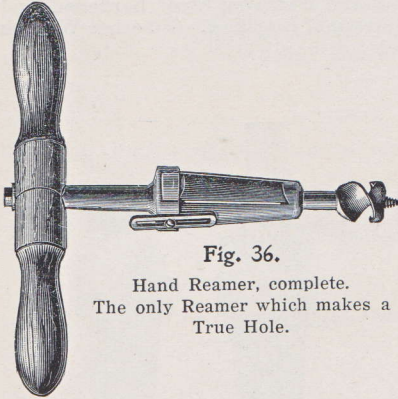


Fig. 36.

Hand Reamer, complete.
The only Reamer which makes a
True Hole.

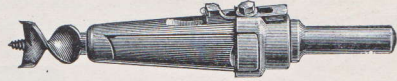


Fig. 37.

Machine Reamer and Countersink.



Use this Wrench only. It comes with
each Reamer.

Prices for Hand Reamers complete.

Order by Sizes as Named Below.	Diameter of Holes which each Reamer will Taper.	Price, each.
1 in. Tap Reamer, no auger	From 11/16 to 1 inch	\$3.25
1 3/8 " " " " "	" 1 to 1 3/8 inch	3.25
1 3/4 " Bung " with "	" 1 1/8 to 1 3/4 inch	6.00
2 " " " " "	" 1 3/8 to 2 inch	6.00
2 1/4 " " " " "	" 1 3/4 to 2 1/4 inch	6.50
2 1/2 " " " " "	" 2 to 2 1/2 inch	7.00
3 " " " " "	" 2 1/2 to 3 inch	7.75
3 1/2 " " " " "	" 3 to 3 1/2 inch	10.50
4 " " " " "	" 3 1/2 to 4 inch	13.00
4 1/2 " " " " "	" 4 to 4 1/2 inch	15.00
5 " " " " "	" 4 1/2 to 5 inch	17.50

Special sizes on application.

Machine Reamers for power use extra.....\$1.00 each
Reamers with countersink extra..... 1.00 "

All parts of reamers are renewable.



Fig. 38.

Knives for Reamer.



Fig. 39.

Bits for Reamer.

Extra Knives.....					\$1.25 each
Extra Bits for Reamers.....	1 3/4	2	2 1/4	2 1/2	3 ins.
Size of Bit.....	1 3/8	1 5/8	1 3/4	1 7/8	2 3/4 " 2 3/8
Price.....	\$1.75	1.90	2.15	2.50	3.00 each
Extra Handles.....					.30 "

When ordering reamers, bits or extra knives, use terms of list and mention sizes.

KIRBY TOOLS AND IMPLEMENTS.

Bush Wrenches made by this Company are of the best Tool Steel, hardened, and *will preserve the shape of the Bush* during the strain of insertion. No other Wrench should be used.



Fig. 40
Hand Bung
Bush Wrench



Fig. 41
Hand Bung
Faucet Wrench

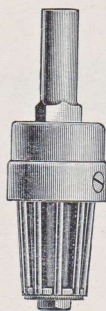


Fig. 42

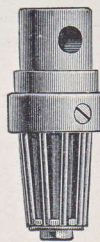


Fig. 43

Machine Bush Wrenches
varying in shanks

Hand Bung and Faucet Bush Wrenches	\$1.50 each
Machine Bush Wrenches	6.50 "



Fig. 44—Wood



Fig. 45—Iron

Faucet Plug Drivers	\$0.60 each
---------------------------	-------------

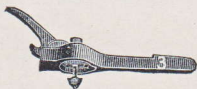


Fig. 46



Fig. 47

Bung Extractors for Solid Bungs.

No. 3	\$1.50 each
No. 4	4 50 "
Arrows for No. 3 and 4	1.75 "

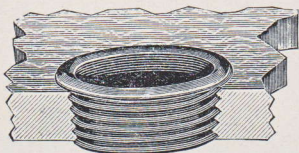


Fig. 48
Half-round Flange
(inserted)



Fig. 49
R. Pentlarge Patent
Nicked Flange
(inserts flush in stave)

Iron Bung Bushes.

The Bushes manufactured by The Kirby Co. are made of *uniform size, proper taper inside and outside*, and are therefore the best in the market.

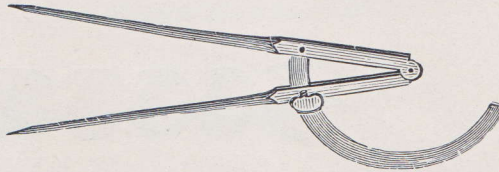
A Bush which is inserted in a bung hole made by the Kirby Reamer, will fit properly and *will never leak*, and bungs will fit perfectly, as all our bushes are carefully made to conform to a uniform size and taper.

Sizes and Prices on request.



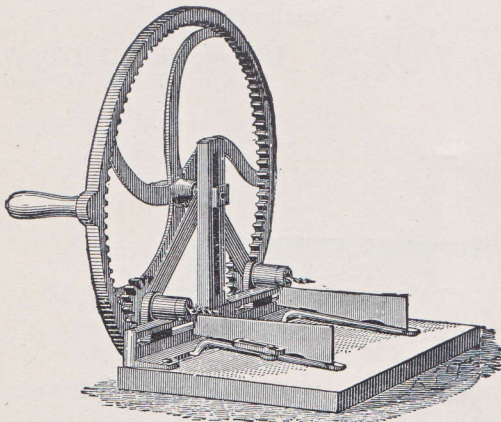
Coopers' Whittler. Fig. 50.

Coopers' Whittlers Heavy Blade, 6 inch.....\$0.85 each



Solid Steel Coopers' Compasses. Fig. 51.

8	10	12	15	18	24 inch
0.30	.40	.50	.75	1.00	1.50 each

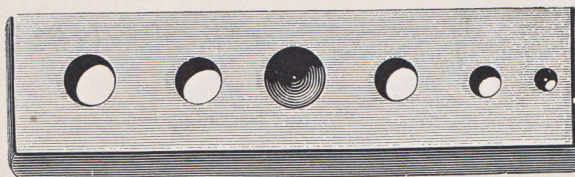


Dowell Machine. Fig. 52.

Merchant's Patent,
Dowell Machine.....\$5.00 each

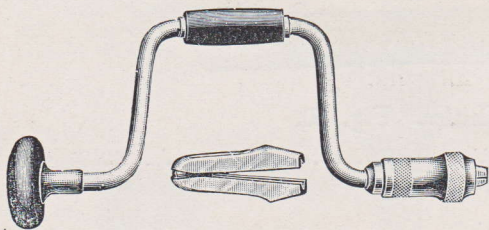
Dowell Trimmer. Fig. 53.

Dowell Trimmers.....\$0.25 each



Dowell Plate. Fig. 54.

Holes $\frac{1}{4}$ to $\frac{1}{2}$ in. \$0.50 each

**Coopers' Braces. Fig. 55.**

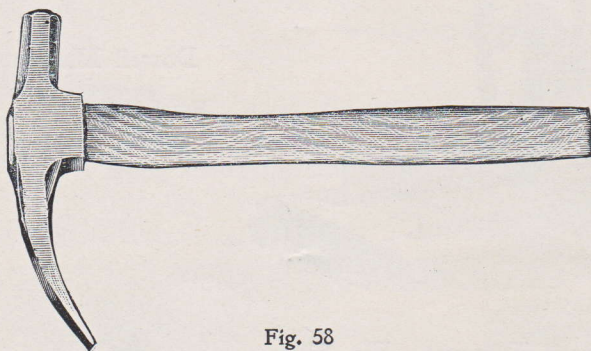
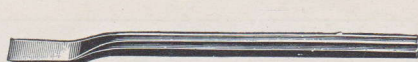
Braces, patent, 8 in. sweep. \$0.35 each

Braces, patent, Nickel plated,
hardened steel jaws, 10 in.

sweep75 "

**Fig. 56**
Brace Bit**Russell Jennings' Patent**
Dowell Bits.**Fig. 57**
Machine Bit

	4/16	5/16	6/16	7/16	8/16	10/16 inch
Brace or Machine Bits.....	\$0.25	.28	.30	.33	.37	.40 each

**Fig. 58****Brombacher's Handled Bung Picks, \$1.60 each****Fig. 59****Solid Steel Bung Picks****Fig. 60****Solid Steel Bung Chisels**

Solid Steel Bung Picks	\$0.60 each
Solid Steel Bung Chisels.....	.60 "



Cold Chisel. Fig. 61.

Cold Chisels, solid cast steel.....	5	6	7	8	9 inch
	\$0.20	.25	.35	.50	.65 each



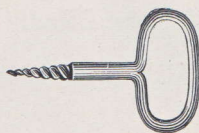
Solid Punch. Fig. 62.

Solid Punches, solid cast steel.....	5	6	7	8	inch
	\$0.20	.30	.35	.50	each
Worm Punches, solid cast steel, square point.....			5	6	inch
			\$0.18	.25	each

Fig. 63
One HoleFig. 64
Two Hole

Rivet Sets.

Rivet Sets, solid cast steel, 1 hole.....	3/16	1/4 inch hole
	\$0.45	.50 each
Rivet Sets, solid cast steel, 2 hole....	3/16 & 1/4 1/4 & 5/16 5/16 & 3/8 3/8 x 3/8 inch hole	
	\$0.60 .65 .75 1.00 each	



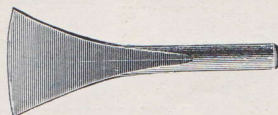
Coopers' Vises. Fig. 65.

Brombacher's best quality.....	\$0.60 each
--------------------------------	-------------



Raising Iron. Fig. 66.

Raising Irons	\$0.50 each
---------------------	-------------



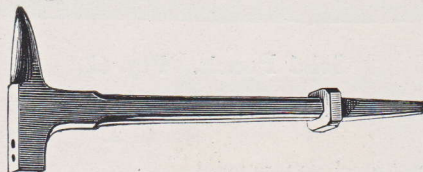
Chincing Iron. Fig. 67.

Chincing Irons.....	\$0.50 each
---------------------	-------------



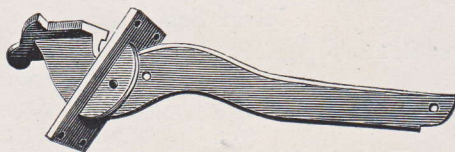
Flagging Iron with Teeth. Fig. 68.

Flagging Irons, plain.....	\$0.80 each
Flagging Irons, with teeth.....	1.00 "
Flagging Irons, with teeth, large.....	1.25 "



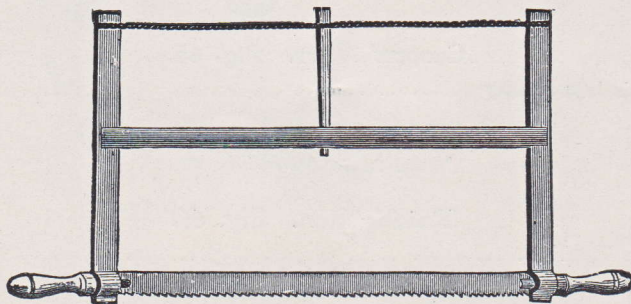
Beck Iron. Fig. 69.

Beck Irons, wrought iron, steel face, weight 20 to 22 lbs.....	\$0.25 per lb.
Stake Irons, wrought iron, steel face, weight 25 to 30 lbs., 36 inches long..	.25 "
Extra Heavy wrought iron, steel face, weight 50 lbs., 36 in. long, for Beer..	.25 "



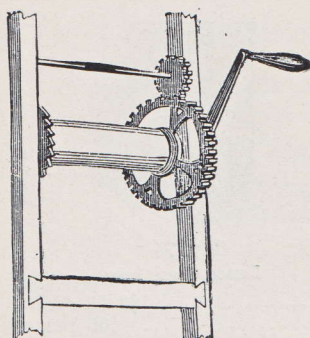
Coopers' Horse Head. Fig. 70.

Horse or Bench Head.....	\$1.75 each
--------------------------	-------------



Coopers' Saws. Fig. 71.

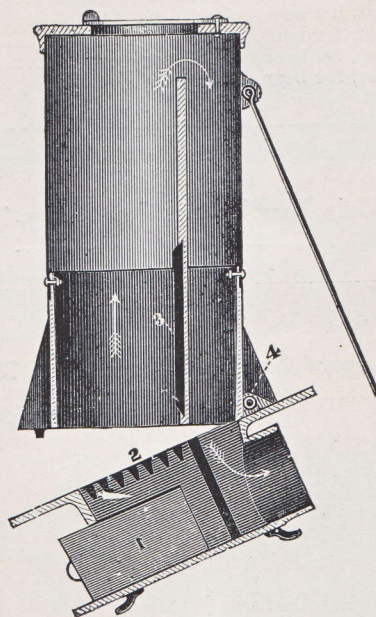
Coopers' Saws complete with blades ...	24	30 inch
Blades only $\frac{1}{2}$ to $\frac{3}{8}$ inches wide	\$1.10	1.25 each
Coopers' Buck Saws.....	.30	.35 "
Coopers' Buck Saw Blades, 2 inches wide, 30 inches long .....		.75 "
		.50 "



Mounted.

Coopers' Windlasses. Fig. 72.

- No. 1, not mounted, drum 15 in. long, 5 in.
diameter.....\$10.00 each
No. 2, not mounted, heavy, drum 5 x 12 in.. 15.00 "
No. 2, mounted, extra heavy..... 25.00 "



Champion Heater.

Coopers' Barrel Heaters. Fig. 73.

- Champion Barrel Heaters, 8 to 12 gallon kegs.....\$13.00 each
Champion Barrel Heaters for barrels 15.00 "

Tripp's Self Gauge Hoop Lock Cutter.

Fig. 74.

Tripp's Self Gauge Hoop
Lock Cutter....\$8.00 each

This machine cuts the lock
in the hoop with one motion.

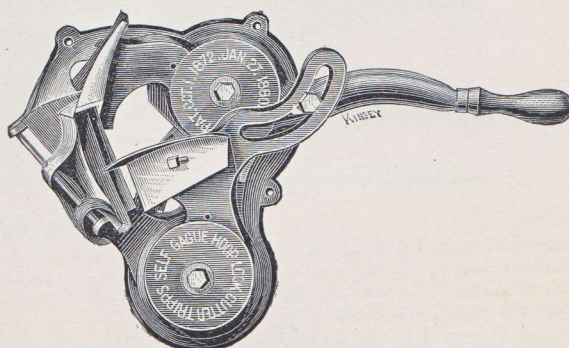




Fig. 75

V Croze Iron

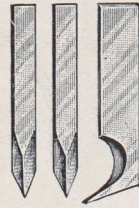


Fig. 76

Lance Croze Iron

V Croze Irons for flour barrels, not warranted	\$0.35 each
Lance Croze Irons, 3 to set, $\frac{1}{8}$ inch, warranted .....	.50 per set
Lance Croze Irons, 3 to set, for beer, $\frac{1}{4}$ inch, warranted .....	.75 "
Lance Croze Irons, 3 to set, for beer, $\frac{3}{8}$ inch, warranted .....	.75 "
Lance Croze Irons, 3 to set, for beer, $\frac{1}{2}$ inch, warranted .....	.90 "
Lance Croze Irons, 3 to set, for beer, $\frac{3}{4}$ inch, warranted	1.00 "
Lance Croze Irons, 3 to set, for beer, 1 inch, warranted	1.10 "



V Salt Barrel Croze Iron. Fig. 77.

V Salt Barrel Croze Irons	\$0.45 each
---------------------------------	-------------



Coopers' Square V Iron. Fig. 78.

Coopers' Square V Irons	\$0.75 each
-------------------------------	-------------



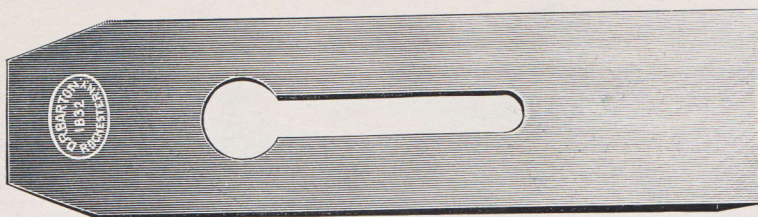
Leveler Iron. Fig. 79.

Leveler Irons, $1\frac{1}{4}$ to $2\frac{1}{4}$ inches	\$0.49 each
--	-------------



Howell Iron. Fig. 80.

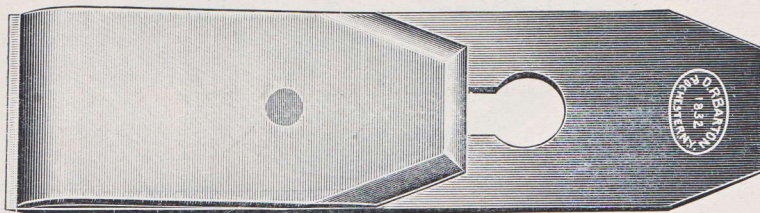
Howell Irons, $1\frac{1}{4}$ to $2\frac{1}{4}$ inches	\$0.60 each
Howell Irons, $2\frac{1}{2}$ inches .....	.75 "
Howell Irons, 3 x 8 or 10 inches long	1.00 "
Howell Irons, 3 x 12 inches long	1.25 "
Float Irons, 4 to $4\frac{1}{2}$ inches wide .....	.85 "



Single or Cut Jointer Iron. Fig. 81.

Barton's Coopers' Single Jointer Irons, 10 inches long.

Width.....	2 $\frac{1}{2}$	2 $\frac{3}{4}$	3	3 $\frac{1}{4}$	3 $\frac{1}{2}$	4 ins.
Price.....	\$0.60	.70	.80	.90	1.00	1.10 each
Barton's 14 inches long....	Width	3	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	5 ins.
		\$2.25	2.75	3.00	3.50	3.75 each



Double Jointer Iron. Fig. 82.

Barton's Coopers' Double Jointer Irons.

Width.....	2 $\frac{1}{2}$	2 $\frac{3}{4}$	3	3 $\frac{1}{4}$	3 $\frac{1}{2}$	4 ins.
Price.....	\$1.10	1.30	1.50	1.60	1.70	1.85 each
Barton's 14 inches long. ...	Width	3	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	5 ins.
		\$3.75	4.50	5.00	5.50	6.25 each

Special sizes made to order.



Compressed Poplar Bungs 15/16 Inch Thick. Fig. 83.

Sizes given refer to largest diameter.

1 to 1 $\frac{1}{2}$	1 $\frac{3}{8}$ to 1 $\frac{1}{2}$	1 $\frac{3}{4}$ to 1 $\frac{7}{8}$	2	2 $\frac{1}{8}$	2 $\frac{1}{4}$	2 $\frac{1}{2}$	2 $\frac{3}{4}$	3 ins.
\$2.50	2.75	3.00	3.50	4.00	4.50	5.50	6.50	8.00 per 1,000

Rubber Bungs—sizes and price on request.



No. 1.

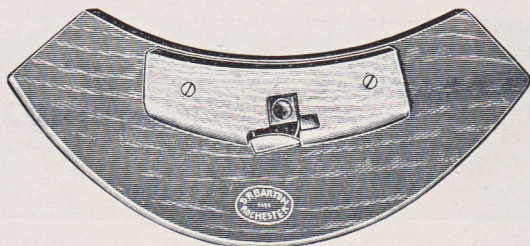


No. 2.

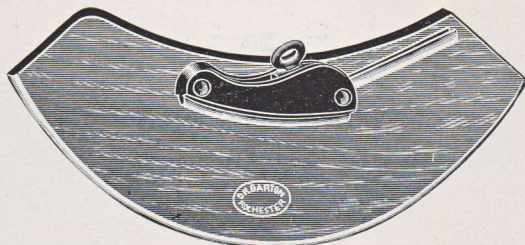
Hoop Fasteners. Fig. 84.

Hoop Fasteners, large, No. 1, 4 $\frac{1}{2}$ -8 inch No. 9 wire.....	\$0.07 per lb.
Hoop Fasteners, medium, No. 2, 4-8 inch No. 10 $\frac{1}{2}$ wire.....	.08 "
Hoop Fasteners, small, No. 2 $\frac{1}{2}$, 3 $\frac{1}{2}$ -8 inch No. 11 $\frac{1}{2}$ wire.....	.09 "

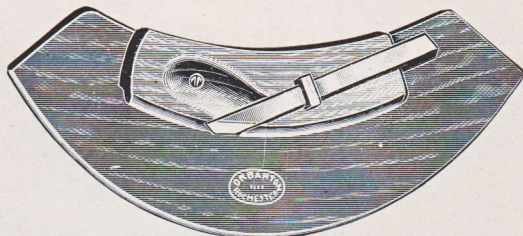
Special price for quantities.

**V Croze. Fig. 85.**

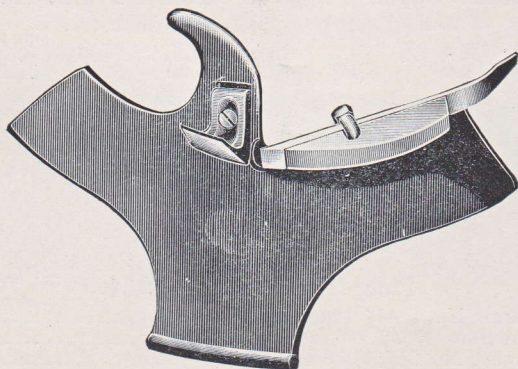
V Croze, Flour Barrel, apple wood.....\$1.25 each
 V Croze, Flour Barrel with lignumvitæ face..... 1.50 "

**Salt Barrel Croze. Fig. 86.**

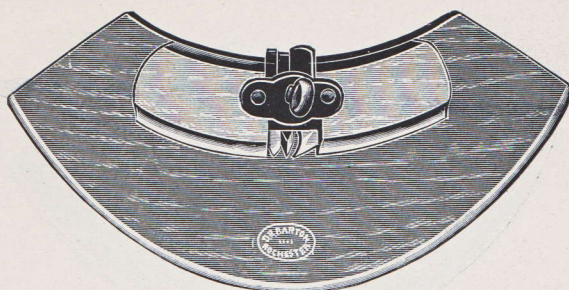
Salt Barrel Crozes, iron block.....\$1.50 each
 Salt Half Barrel Crozes..... 1.50 "

**Atchison Croze. Fig. 87.**

Atchison Crozes, apple wood.....\$1.75 each

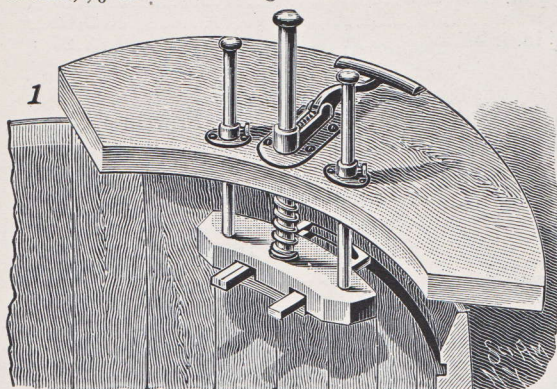
**Close Chamfer Howells Iron. Fig. 88.**

Close Chamfer Howells Iron..... \$3.50 each
 Close Chamfer Howells and Croze combined..... 6.00 "



Tight Barrel Crozes, maple boards. Fig. 89.

Crozes for 5 and 10 gal. kegs	\$1.50 each
Crozes for half barrels.....	1.75 "
Crozes for Barrel	2.00 "
Crozes for Tierce	2.50 "
Crozes for Hogshead.....	3.00 "
Crozes for Oil Barrels, Cleveland pattern.....	1.75 "
Crozes for Beer, $\frac{1}{4}$ in. iron for $\frac{1}{8}$ and $\frac{1}{4}$ kegs.....	2.25 "
Crozes for Beer, half barrel.....	2.50 "
Crozes for Barrel.....	2.75 "
Crozes, $\frac{3}{8}$ in. iron for hogshead.....	3.00 "



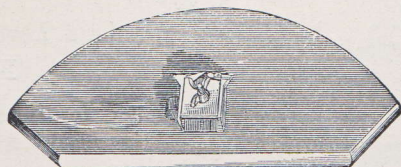
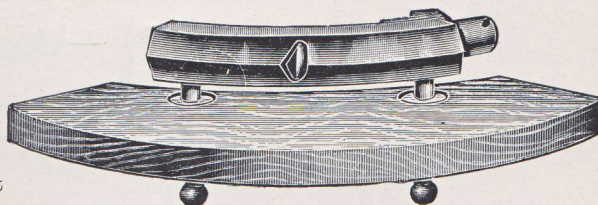
Shifting Croze. Fig. 90.

New Jersey Shifting Croze,
\$3.50 each
Extra Irons..... .50 per set

Shifting Howell.

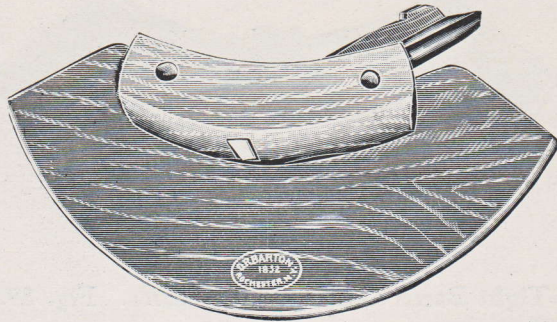
Fig. 91.

New Jersey Shifting
Howell, brass block,
\$3.75 each
Extra Irons... .60 per set



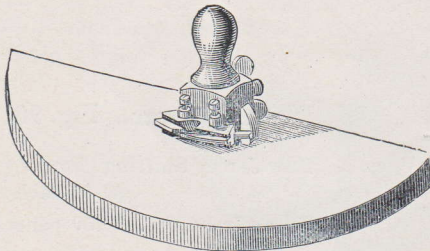
Oil Barrel Post Croze. Fig. 92.

For Oil Barrels and Half Barrels $\frac{1}{8}$ inch iron.....\$2.50 each



Tight Barrel Howells, maple boards. Fig. 93.

Howells for 5 and 10 gallon kegs.....	\$1.75 each
Howells for Half Barrels.....	2.00 "
Howells for Barrels.....	2.25 "
Howells for Tierce.....	2.75 "
Howells for Hogshead.....	3.00 "
Howells for Oil Barrels, Cleveland pattern.....	2.00 "
Howells for Beer, $2\frac{1}{2}$ in. iron for $\frac{1}{8}$ and $\frac{1}{4}$ keg	2.50 "
Howells for Beer, half barrels, $2\frac{1}{2}$ in. iron.....	2.75 "
Howells for Beer, barrels, $2\frac{1}{2}$ in. iron.....	3.00 "
Howells for Beer, hogsheads, $2\frac{1}{2}$ in. iron	3.25 "



Portland Post or Shifting Croze.

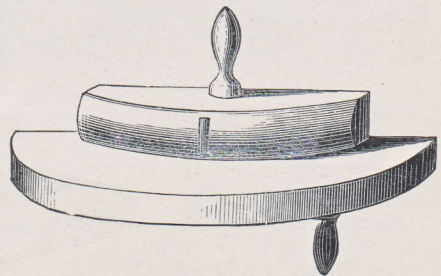
Fig. 94.

For Tierces or Hogsheads, $\frac{1}{4}$ in. iron.....	\$5.00 each
Brass Heads and Irons, without stock.....	3.50 "

Portland Howells with Handles.

Fig. 95.

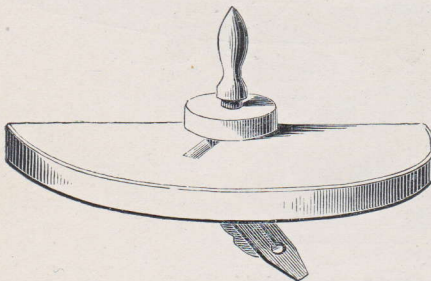
Howells for Tierces or Hogsheads.....	\$4.00 each
---------------------------------------	-------------

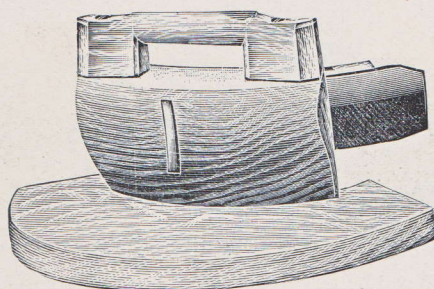


Portland Leveller with Handles.

Fig. 96.

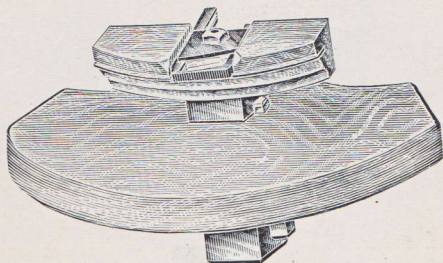
Levellers for Tierces or Hogsheads.....	\$3.00 each
---	-------------





Beer Howells. Fig. 97.

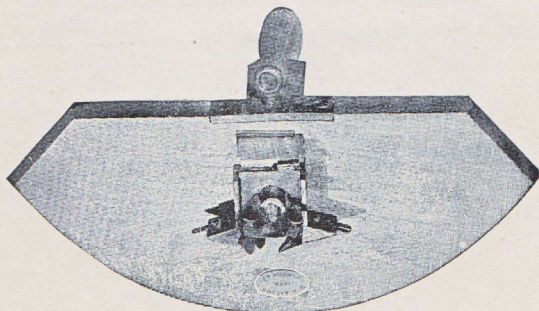
Brombacher's Howells for Beer, 3 in. irons without handles, for $\frac{1}{8}$ and $\frac{1}{4}$ barrels.....	\$3.75 each
Brombacher's Howells for Beer, 3 in. irons without handles, for half barrels.....	4 00 "
Brombacher's Howells for Beer, 3 in. irons with handles, for barrels.....	4.50 "
Brombacher's Howells for Beer, 3 in. irons with handles, for hogsheads....	4.75 "



Beer Post Croze. Fig. 98.

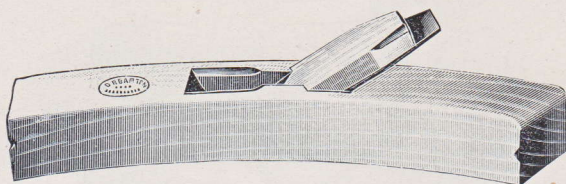
Brombacher's Post Croze for Beer, with $\frac{3}{8}$ in. irons for $\frac{1}{8}$ and $\frac{1}{4}$ barrels...	\$3.50 each
Brombacher's Post Croze for Beer, with $\frac{3}{8}$ in. irons for half barrels.....	3.75 "
Brombacher's Post Croze for Beer, with handles and 1 in. irons for barrels.	4.00 "
Brombacher's Post Croze for Beer, with handles and 1 in. irons for hogsheads	4.25 "

We can furnish Beer Crozes with $\frac{1}{2}$ or $\frac{3}{4}$ in. irons.



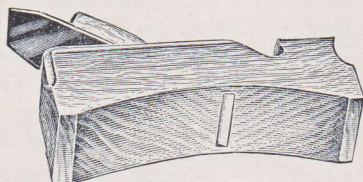
Post or Shifting Croze. Fig. 99.

Beer Repair Croze for all size packages $\frac{1}{4}$ in. irons.....	\$3.50 each
Croze for Barrel and Half Barrel $\frac{3}{16}$ in. irons.	3.00 "
Croze for Tierces and Hogsheads $\frac{3}{16}$ in. irons.....	3.50 "



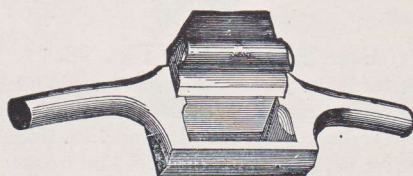
Coopers' Leveller. Fig. 100.

For Barrels,	Apple Wood.....	\$1.25 each
For Tierces,	“ “	1.35 “
For Hogsheads,	“ “	1.50 “



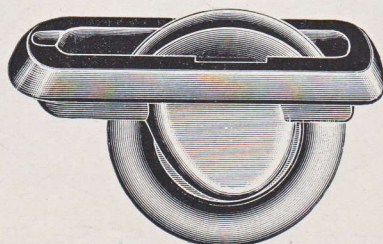
Coopers' Rounding Plane. Fig. 101.

Brombacher's for all size work.....	\$2.00 each
-------------------------------------	-------------



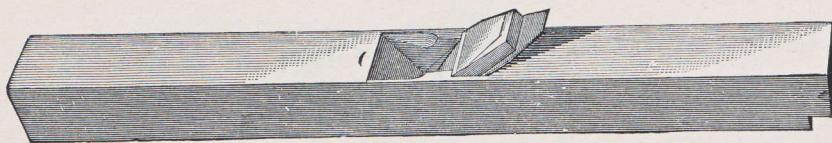
Coopers' Head Float. Fig. 102.

Coopers' Head Float, Apple Face	\$3.50 each
---------------------------------------	-------------



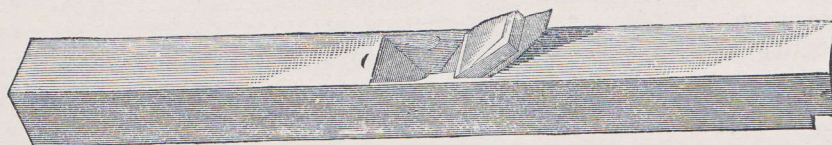
Coopers' Pulley. Fig. 103.

Coopers' Pulley.....	\$0.60 each
----------------------	-------------



Coopers' Jointers for Head. Fig. 104.

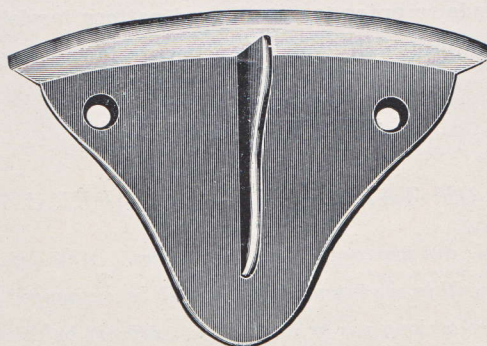
Double Iron Head Jointer, 3 ft. long, 3 x 3 inches.	\$2.00 each
Double Iron Head Jointer, 4 ft. long, 3 x 3 inches.	2.50 "
Double Iron Head Jointer, 5 ft. long, 4 x 4 inches.	3.13 "
Double Iron Head Jointer, 6 ft. long, 5 x 5 inches.	7.00 " 3.50



Coopers' Jointers for Stave. Fig. 105.

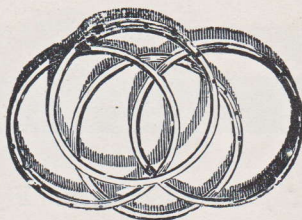
Double Iron Stave Jointer, 3 ft. long, 3 x 3 inches.	\$2.00 each
Double Iron Stave Jointer, 4 ft. long, 3 x 3 inches.	2.50 "
Double Iron Stave Jointer, 5 ft. long, 4 x 4 inches.	3.13 "
Double Iron Stave Jointer, 6 ft. long, 5 x 5 inches.	7.00 " 3.50

Combined Head and Stave Jointers made to order.



Nailing Block. Fig. 106.

Nailing Block.	\$.0.65 each
---------------------	--------------



Coopers' Truss Hoops. Fig. 107.

Six Hoops to Set. Best Quality Hickory.

8 to 12 inch.....	\$3.25 per set	22 to 24 inch.....	\$ 5.00 per set
12½ to 14 "	3.50 "	26 to 28 "	6.00 "
14½ to 16 "	3.75 "	30 to 34 "	7.00 "
16½ to 17½ "	4.00 "	36 to 38 "	8.00 "
18 to 19½ "	4.25 "	40 to 44 "	9.00 "
20 to 21½ "	4.50 "	Over 44 inches....	10.00 "

Extra Heavy Truss Hoops for Beer.

12 inch.....	\$4.25 per set	18 inch	\$5.25 per set
14½ "	4.75 "	23 "	6.00 "

Dimensions given above are size of head hoop.

Truss Hoops sold singly or in sets.

Hoops of special sizes made to order.

When ordering truss hoops be sure to specify size of head, quarter and bilge hoop and state if they are wanted for tight or slack work.

Tools made to order to any desired pattern furnished us.

We furnish all kinds of Cooperage Machinery.

TERMS OF WARRANTY ON COOPERS' TOOLS.

All Coopers' Tools are warranted free from flaws. Any defective tool returned to us free of charge within a reasonable time will be exchanged for a perfect tool. Tools showing evidence of long use or having been injured by misuse are not covered by this warranty.

All tools stamped BROMBACHER are especially made for us and are the best of their kind.

TRUSS HOOP SIZES.

SLACK WORK.		
Head.	Quarter.	Bilge.
9	10	10 $\frac{3}{4}$
10	11	11 $\frac{3}{4}$
10 $\frac{1}{2}$	11 $\frac{1}{2}$	12
11	12	12 $\frac{3}{4}$
11 $\frac{1}{2}$	12 $\frac{1}{2}$	13 $\frac{1}{4}$
12	13	14
12 $\frac{1}{2}$	13 $\frac{1}{2}$	14 $\frac{1}{2}$
13	14 $\frac{1}{2}$	15 $\frac{1}{4}$
13 $\frac{1}{2}$	14 $\frac{3}{4}$	15 $\frac{3}{4}$
14	15 $\frac{1}{4}$	16 $\frac{1}{4}$
14 $\frac{1}{2}$	16 $\frac{1}{8}$	17 $\frac{1}{8}$
15	16 $\frac{1}{2}$	17 $\frac{1}{2}$
15 $\frac{1}{2}$	17	18
16	17 $\frac{5}{8}$	18 $\frac{5}{8}$
16 $\frac{1}{2}$	18 $\frac{1}{4}$	19 $\frac{1}{4}$
17	18 $\frac{1}{2}$	19 $\frac{1}{2}$
17 $\frac{1}{2}$	19 $\frac{1}{4}$	20 $\frac{1}{4}$
18	19 $\frac{5}{8}$	20 $\frac{3}{4}$
18 $\frac{1}{2}$	20 $\frac{1}{8}$	21 $\frac{1}{4}$
19	20 $\frac{3}{4}$	21 $\frac{7}{8}$
19 $\frac{1}{2}$	21 $\frac{1}{4}$	22 $\frac{1}{2}$
20	21 $\frac{3}{4}$	23
20 $\frac{1}{2}$	22 $\frac{1}{4}$	23 $\frac{1}{2}$
21	22 $\frac{3}{4}$	24
21 $\frac{1}{2}$	23 $\frac{1}{4}$	24 $\frac{1}{2}$
22	24	25 $\frac{1}{2}$
23	25	26 $\frac{1}{2}$
24	26	27 $\frac{1}{2}$
25	27	28 $\frac{3}{4}$
26	28	29 $\frac{3}{4}$
28	30	31 $\frac{3}{4}$
30	32	33 $\frac{3}{4}$

PORK BARRELS.		
Head.	Quarter.	Bilge.
18	20	21 $\frac{1}{4}$

LARD TIERCES.		
Head.	Quarter.	Bilge.
21	23	24 $\frac{3}{4}$

OIL BARRELS.		
Head.	Quarter.	Bilge.
21	23 $\frac{1}{2}$	25

WHISKEY BARRELS.		
Head.	Quarter.	Bilge.
20 $\frac{1}{2}$	22 $\frac{1}{2}$	24

CEMENT BARRELS.		
Head.	Quarter.	Bilge.
17	18 $\frac{5}{8}$	19 $\frac{3}{4}$

FLOUR BARRELS.		
Head.	Quarter.	Bilge.
17 $\frac{5}{8}$	19 $\frac{1}{4}$	20 $\frac{1}{4}$

FLOUR HALF BARRELS.		
Head.	Quarter.	Bilge.
14 $\frac{1}{2}$	16 $\frac{1}{8}$	17 $\frac{1}{8}$

LIME BARRELS.		
Head.	Quarter.	Bilge.
16	17 $\frac{5}{8}$	18 $\frac{3}{4}$

SALT BARRELS.		
Head.	Quarter.	Bilge.
18 $\frac{1}{2}$	20 $\frac{1}{8}$	21

APPLE BARRELS.		
Head.	Quarter.	Bilge.
17	18 $\frac{3}{4}$	19 $\frac{3}{4}$

SUGAR BARRELS.		
Head.	Quarter.	Bilge.
19 $\frac{5}{8}$	21 $\frac{5}{8}$	23 $\frac{5}{8}$

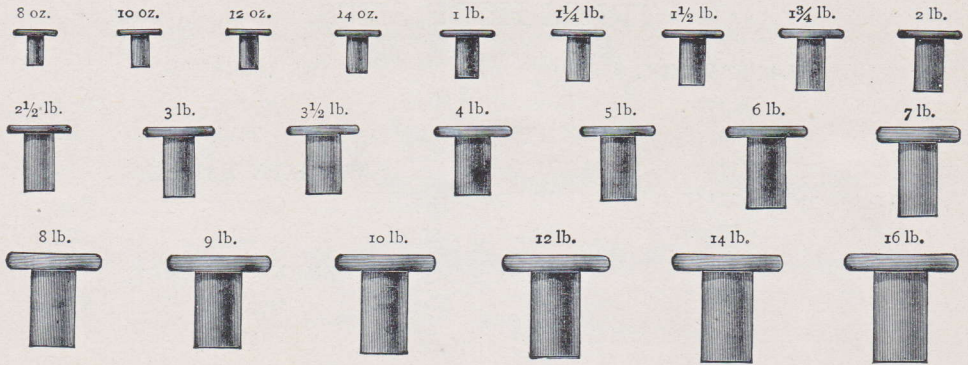
SIX GALLON KEGS.		
Head.	Quarter.	Bilge.
11	12 $\frac{1}{4}$	13 $\frac{1}{8}$

TEN GALLON KEGS.		
Head.	Quarter.	Bilge.
12 $\frac{1}{2}$	14	15

40-lb. BUTTER TUBS.		
Bottom.	Quarter.	Top.
10 $\frac{1}{2}$	11 $\frac{5}{8}$	13 $\frac{1}{4}$

60-lb. BUTTER TUBS.		
Bottom.	Quarter.	Top.
12	13 $\frac{5}{8}$	14 $\frac{7}{8}$

Coopers' Rivets. Fig. 108.

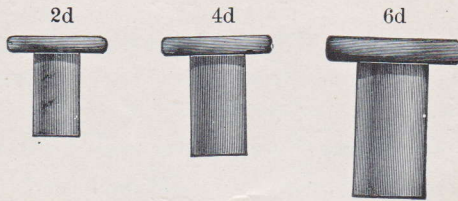


Approximate Dimensions of Rivets.

Size	Length	Diameter Wire Gauge	Size	Length	Diameter Wire Gauge	Size	Length	Diameter Wire Gauge
8 oz.	5/32	No. 13 1/4	2 lb.	17/64	No. 9 1/4	7 lb.	13/32	No. 5 1/4
10 "	11/64	" 13	2 1/2 "	9/32	" 9	8 "	7/16	" 4 3/4
12 "	3/16	" 12 1/4	3 "	5/16	" 8 1/4	9 "	29/64	" 4 1/4
14 "	3/16	" 12	3 1/2 "	21/64	" 8	10 "	15/32	" 4
1 lb.	13/64	" 11 3/4	4 "	11/32	" 7 1/4	12 "	1/2	" 3
1 1/4 "	7/32	" 11	5 "	3/8	" 6 3/4	14 "	33/64	" 2
1 1/2 "	15/64	" 10 1/4	6 "	25/64	" 6	16 "	17/32	" 1
1 3/4 "	1/4	" 10						

The above in packages of 1000 or bulk, black or tinned.

Approximate Dimensions. Fig. 109.



Size.....	1d	2d	3d	4d	5d	6d
Length.....	13/32	7/16	15/32	17/32	19/32	11/16
Diameter Wire Gauge.....	No. 4	No. 3	No. 2	No. 1	No. 0	No. 00



Double Pointed Dowel Pins. Fig. 110.

2 inch No. 11 Wire \$0.10 per lb.

Special price for quantities.

We carry a large stock of

Black or Tinned Iron Burrs
Hoop Iron
Band Iron
Chalk

Coopers' Cut Nails
Hoop Nails
Galvanized Hoop Iron
Brass Hoop

Sheet Lead
Coopers' Wire Nails
Flagging

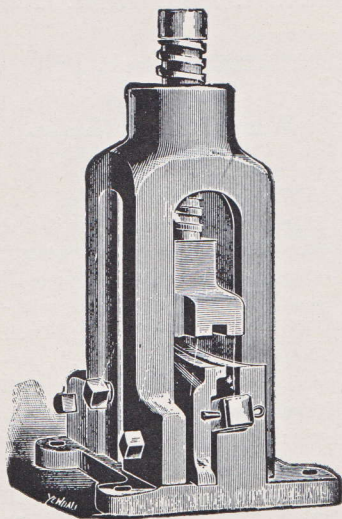
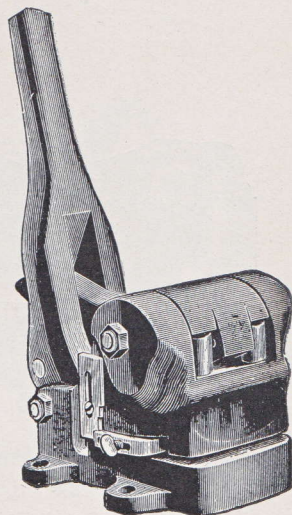
Prices quoted on request.

COOPERS' TOOLS.

Lever Punch. Fig. 111.

Weighs about 60 pounds and punches two holes in one operation $1\frac{1}{2}$ or 2 inches apart as ordered. Adjustment and gauge to set hoop iron. One pair dies and punches with each punch. By removing one punch will punch one hole only. State for what size or send sample of rivet when ordering. Dies and punches furnished for any size rivet.

Price with 1 pr. of dies and punches..\$13.50 each
 Extra Dies..... 1.00 pair
 Extra Punches 1.00 "



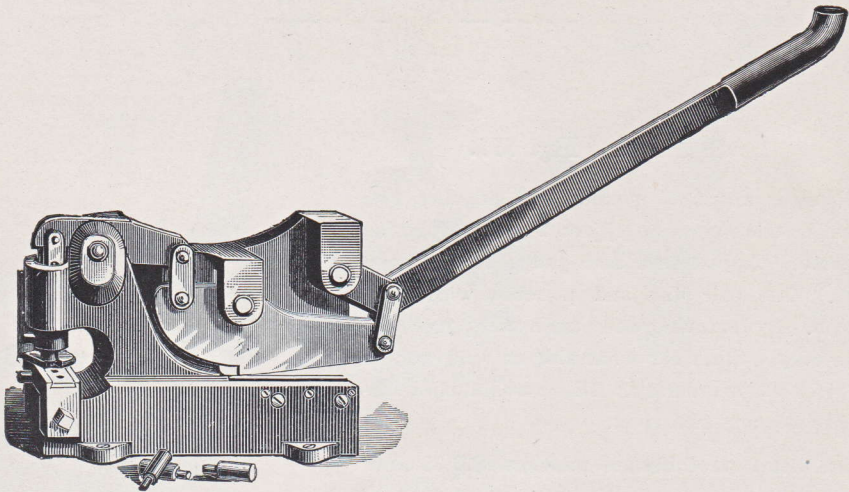
Hand Flaring Machine. Fig. 112.

This machine is being used in a great many Cooper shops and seems to give entire satisfaction.

Approximate weight, 70 pounds.

Price.....\$18.00 each

COOPERS' TOOLS.

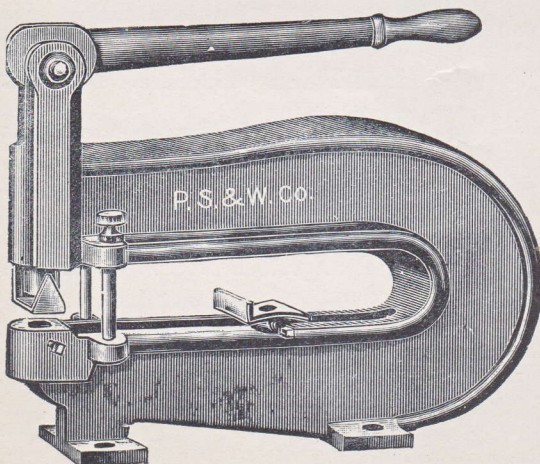


Combined Shear and Punch. Fig. 113.

These Machines are suitable for both cutting and punching metal. They may be used for cutting $\frac{1}{8}$ -inch iron, and $\frac{3}{16}$ and $\frac{1}{4}$ -inch narrow bars. Four Punches are put up with No. 1, viz: $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$ and $\frac{5}{16}$ inch. Five Punches are put up with No. 2, viz: $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$ and $\frac{3}{8}$ inch.

No. 1, Shear and Punch, $4\frac{1}{2}$ -inch cut, will punch $\frac{1}{8}$ -inch iron, weighs 100 lbs....	\$16.00
No. 2, Shear and Punch, $5\frac{1}{2}$ -inch cut, will punch $\frac{3}{16}$ -inch iron, weighs 120 lbs..	20.00
Extra Punches, each .....	.75
Extra Dies, each	1.25

Samson Punch, Bolt
Fastened,
Wrought Iron Links.
Fig. 114.

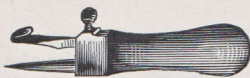


We warrant it to punch No. 9 Iron with "stay bolts," and No. 12 without "stay bolts." Depth of gap, 15 inches; will centre on 30-inch sheets without "stay bolts," and 7-inch sheets with "stay bolts." Accompanying each Machine are three sets of Dies and Punches, viz: $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$ in.

No. 5 Improved Samson

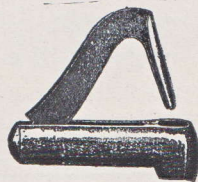
Punch, weighs 95 lbs. ..	\$20.00
Extra Punches, each....	.75
Extra Dies, each.....	1.25

GAUGERS' TOOLS.



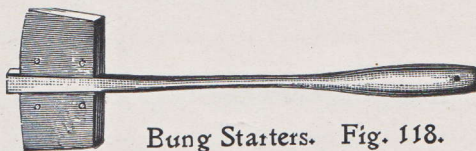
Gaugers' Marking Irons. Fig. 115.

Best quality with extra cutter	\$1 25 each
Extra Cutters for same	20 "

Fig. 116
Wood HandleFig. 117
Folding Brass Handle

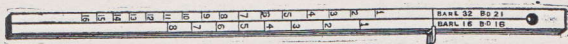
Race Knives.

Race Knives, wood handle, Fig. 116.....	\$0 65 each
Race Knives, Blades only, Fig. 116.....	.55 "
Race Knives, folding wood handle, Fig. 117.....	.50 "
Race Knives, folding brass handle, Fig. 117.....	.75 "
Race Knives, Blades only, Fig. 117.....	.40 "



Bung Starters. Fig. 118.

Bung Starters, Hand made, Dovetailed and screwed.....	\$0.40 each
Bung Starters, Hand made, Dovetailed and riveted.....	.50 "



Wantage Rod. Fig. 119.

Wantage Rod, 8 line	\$0.50 each
Wantage Rod, 12 line.....	.75 "
Wantage Rod, 8 line, boxwood....	.75 "
Wantage Rod, 12 line, boxwood.....	1.00 "



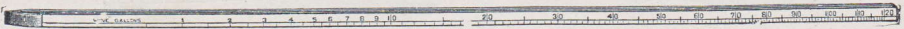
Gauge Rods. Fig. 120.

Gauge Rods, 3 ft., 120 gal. capacity.....	\$0.50 each
Gauge Rods, 4 ft., 180 gal. capacity .....	.75 "
Gauge Rods, 3 ft., Ivory face, brass point.....	1.50 "
Gauge Rods, 3 ft., Ivory face, brass point, brass back.....	2.25 "
Gauge Rods, 3 ft., Ivory face, steel point, brass back.....	3.00 "
Gauge Rods, 3 ft., all steel.....	5.00 "
Brass Slides for Gauge Rods.....	1.00 "
Gauge Rods, 3 ft. for milk cans.....	.50 "
Freight Sticks, 5 ft., Maple, brass hook....	1.50 "
Freight Calipers, 5 ft., long jaw.....	6 00 "

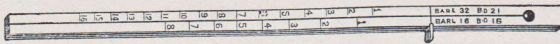
Directions how to use Gauge and Wantage Rods on next page.

HOW TO GAUGE.

There are two sticks used in straight gauging—the gauge-rod and the wantage-rod. The gauge-rod is to determine the number of gallons the package will contain. The wantage-rod is to show how many gallons it lacks of being full. If a barrel has a capacity of 48 gallons, and the wantage-rod shows 6 gallons wantage, there are, of course, 42 gallons in the barrel.



Gauge-Rod. Fig. 120.

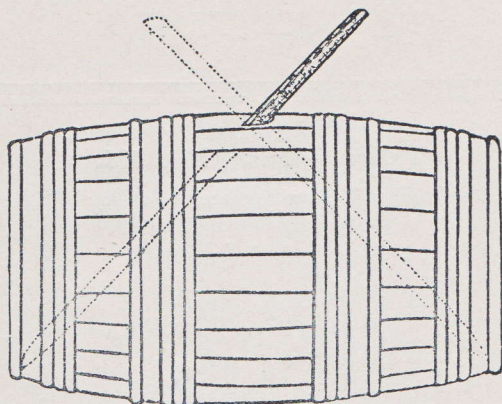


Wantage-Rod. Fig. 119.

DESCRIPTION OF THE RODS.

The gauge-rod is a half-inch square rod, three feet long, see Fig. 120, shaped for about an inch like a wedge, which space is covered with brass to prevent it wearing. On the two opposite sides of the rod, not sharpened at the end, are inch scales measured off and properly subdivided. On one of the other sides is the scale, to show the capacity of the package to be gauged, ranging from one gallon up to one hundred and twenty gallons, wine measure. On the back is the 42 gallon wantage-scale. The 300 gallon rod is 48 inches long. One may, therefore, gauge half-barrels, barrels, tierces, puncheons, hogsheads and pipes, provided they are made on the basis of wine measure. The usual barrel and half-barrel of spirits, molasses and oil, are made on that basis, and may be gauged with it.

The wantage-rod is a three-quarter of an inch square rod, see Fig. 119, seventeen inches long, with a small brass plate projecting a half-inch from one side, about five inches from the top of the rod, and measured off with a double scale on each side to show the number of gallons out of each kind of package. It has, therefore, eight scales, and can show the wantage of eight different kinds of packages. This rod is also made with 12 scales.



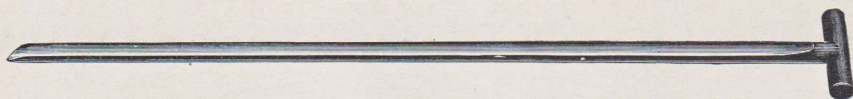
HOW TO USE THEM.

Placing the barrel, for instance, on its side, so as the bung-hole will be at the top, insert the sharpened end of the gauge-rod in a slanting direction through the bung-hole until it reaches the place where the head fits into the stave, directly opposite the one in which the bung-hole is, pushing it in as far as it will go, keeping the side on which the number of gallons is marked uppermost. Now, notice exactly where the rod strikes the under side of the middle of the bung-hole, putting your finger on the place if you cannot see it before drawing out the rod. If the bung-hole was exactly in the middle of the barrel every time, that measure would be enough, but as it is not always so, it is necessary to reverse your rod and measure in the same way from the middle of the bung-hole to the other end of the barrel, and take the average. For instance, you measure one way and it shows 49 gallons; you measure the other way and it shows 47 gallons; then you take the average, which is 48 gallons, which is the capacity of the barrel. Be careful not to confound the inch scales on two sides of the rod with the gallon scale.

In using the wantage rod, be careful to insert it perpendicularly down the centre of the bung-hole until the little brass plate comes just under the inside of the stave. Then withdraw it, without letting it go any further into the barrel, and notice where the liquid shows the highest mark on the rod, and the number corresponding to that mark and the kind of package will show how many gallons are wanting to fill it.

A little practice will soon enable any one to use the rods with ease and accuracy.

PRODUCE TRIERS.



Tallow Triers. Fig. 121.

No. 10, Solid Forged Steel, T-Handle, inside diameter of bowl $\frac{7}{8}$ inch.

30	36 inch
\$4.50	5.50 each

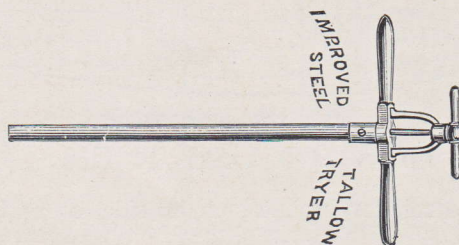
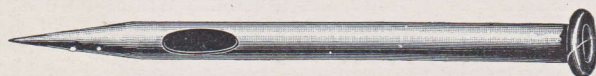


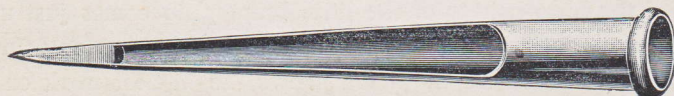
Fig. 122.

Improved Steel Tallow Trier, nickel plated.....\$10.00 each
 Length of barrel $16\frac{1}{2}$ inches, inside diameter $\frac{5}{8}$ inch.



Grain and Seed Triers. Fig. 123.

No. 13, Grain Trier with sheath, nickel plated, length 6 inches, inside diameter, $\frac{5}{8}$ inch.....\$0.75 each
 No. 14, Seed Trier with sheath, nickel plated, length $4\frac{1}{4}$ inches, inside diameter, $\frac{5}{32}$ inch..... .75 "
 Philadelphia Seed Trier without sheath, length 8 inches..... 1.25 "



Philadelphia Coffee and Rice Triers. Fig. 124.

Philadelphia Coffee Trier with solid steel points, 12 inches long.....\$1.50 each
 Philadelphia Rice Trier with solid steel points, 9 inches long..... 1.50 "

We carry in stock Triers for Cheese, Butter, Flour, Sugar, Cotton and Ham.

A. F. BROMBACHER & CO.

Carry a Complete Stock of

**Builders' and Cabinet Hardware
Manufacturers' and Engineers'
Tools and Supplies**

Cutlery

Garden Tools

Agents

Pennsylvania Lawn Mowers

Importers of the

Genuine Haarlem Oil

SEND FOR PRICES

**29 & 31 FULTON STREET
NEW YORK**